

**WEST**

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L11: Entry 7 of 30

File: DWPI

Oct 30, 2001

DERWENT-ACC-NO: 1998-568754

DERWENT-WEEK: 200202

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TITLE: Woven material has warp and weft of tape which may be polymer or metal - has partly non-homogeneous construction e.g. laminated, perforated, embossed etc.

INVENTOR: KHOKAR, N

PATENT-ASSIGNEE:

ASSIGNEE

BITEAM AB

GRUNDSTENEN AB

CODE

BITEN

GRUNN

PRIORITY-DATA: 1997SE-0001374 (April 14, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2001520709 W	October 30, 2001		035	D03D015/00
WO 9846817 A1	October 22, 1998	E	040	D03D015/00
SE 9701374 A	October 15, 1998		000	D03D015/00
AU 9870928 A	November 11, 1998		000	D03D015/00
EP 1012365 A1	June 28, 2000	E	000	D03D015/00

DESIGNATED-STATES: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW AT BE CH CY DE DK EA ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP2001520709W	April 14, 1998	1998JP-0543812	
JP2001520709W	April 14, 1998	1998WO-SE00669	
JP2001520709W		WO 9846817	Based on
WO 9846817A1	April 14, 1998	1998WO-SE00669	
SE 9701374A	April 14, 1997	1997SE-0001374	
AU 9870928A	April 14, 1998	1998AU-0070928	
AU 9870928A		WO 9846817	Based on
EP 1012365A1	April 14, 1998	1998EP-0917883	
EP 1012365A1	April 14, 1998	1998WO-SE00669	
EP 1012365A1		WO 9846817	Based on

INT-CL (IPC): D03 C 13/00; D03 D 15/00; D03 D 15/02; D03 D 47/00; D03 D 47/39

ABSTRACTED-PUB-NO: WO 9846817A

BASIC-ABSTRACT:

A woven material comprises tape-like warp (23) and weft (25) the constitution of some of which is non-homogeneous. Also claimed a weaving machine for making the fabric as

above.

USE - A woven material with weft made of tapes of non homogeneous laminated construction including metal or polymers.

ADVANTAGE - Useful for specialised purposes.

CHOSEN-DRAWING: Dwg.9/10

TITLE-TERMS: WOVEN MATERIAL WARP WEFT TAPE POLYMER METAL NON HOMOGENEOUS CONSTRUCTION LAMINATE PERFORATION EMOSS

DERWENT-CLASS: A83 A94 F03

CPI-CODES: A11-C05A; A12-S05F; F02-A03; F02-A04A;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1] 018 ; P0000 ; S9999 S1194 S1161 S1070 ; S9999 S1241 S1229 S1070 ; S9999 S1650 S1649 Polymer Index [1.2] 018 ; ND01 ; ND04 ; K9552 K9483 ; K9574 K9483 ; K9676\*R ; K9712 K9676 ; Q9999 Q7818\*R ; B9999 B5458 B5403 B5276 ; N9999 N6304 N6268 Polymer Index [2.1] 018 ; S9999 S1650 S1649 ; S9999 S1514 S1456 ; H0317 Polymer Index [2.2] 018 ; S9999 S1650 S1649 ; S9999 S1514 S1456 ; H0328 Polymer Index [2.3] 018 ; ND01 ; ND04 ; K9552 K9483 ; K9574 K9483 ; K9676\*R ; K9712 K9676 ; Q9999 Q7818\*R ; B9999 B5458 B5403 B5276 ; N9999 N6304 N6268 Polymer Index [2.4] 018 ; K9518 K9483 ; B9999 B5016\*R B4977 B4740

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1998-171050

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L11: Entry 16 of 30

File: DWPI

Aug 11, 1989

DERWENT-ACC-NO: 1989-274493

DERWENT-WEEK: 198938

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TITLE: Embossed tape for semiconductor packaging - has carrier tape, bar-tape, cover  
tape and aperture hole at bottom of cavity NoAbstract Dwg 1/9

PATENT-ASSIGNEE:

ASSIGNEE

CODE

HITACHI LTD

HITA

PRIORITY-DATA: 1988JP-0019641 (February 1, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 01199868 A	August 11, 1989		005	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP01199868A	February 1, 1988	1988JP-0019641	

INT-CL (IPC): B65D 73/02; H01L 23/00; H05K 13/02

ABSTRACTED-PUB-NO:

EQUIVALENT-ABSTRACTS:

TITLE-TERMS: EMBOSS TAPE SEMICONDUCTOR PACKAGE CARRY TAPE BAR TAPE COVER TAPE APERTURE  
HOLE BOTTOM CAVITY NOABSTRACT

DERWENT-CLASS: Q34 U11 V04

EPI-CODES: U11-F02A4; V04-X;

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L11: Entry 15 of 30

File: DWPI

Jul 10, 1990

DERWENT-ACC-NO: 1990-244451

DERWENT-WEEK: 199032

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TITLE: Component tape feeder shear for automatic component placement process - using carrier tape embossed and perforated to accommodate component and sprocket drive, and thermally bonded seal time

PATENT-ASSIGNEE:

ASSIGNEE

CODE

ANONYMOUS

ANON

PRIORITY-DATA: 1990RD-0315013 (June 20, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
RD 315013 A	July 10, 1990		000	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
RD 315013A	June 20, 1990	1990RD-0315013	

INT-CL (IPC): H05K 0/01

ABSTRACTED-PUB-NO: RD 315013A

BASIC-ABSTRACT:

The method to circumvent seal-tape breakage while feeding taped SMT components in an automatic component placement process uses component tape which consists of a carrier tape, embossed and perforated to accommodate the component and sprocket drive, and a seal tape that is thermally bonded to the carrier tape. When the bond strength exceeds the seal-tape strength, the tape tears, inhibiting part presentation to the placement tool pick-up head.

The device used to circumvent this failure is a shear blade mounted in the feeder mechanism approximately 0.01 inches behind the seal-tape/carrier tape separation point. When the tear failure occurs or is imminent, the blade completes the tape separation.

ADVANTAGE - Avoids interruption of manufacturing process.

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS: COMPONENT TAPE FEED SHEAR AUTOMATIC COMPONENT PLACE PROCESS CARRY TAPE  
EMBOSS PERFORATION ACCOMMODATE COMPONENT SPROCKET DRIVE THERMAL BOND SEAL TIME

DERWENT-CLASS: V04

EPI-CODES: V04-R04B; V04-V01;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1990-189535

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L11: Entry 19 of 30

File: DWPI

Nov 12, 1987

DERWENT-ACC-NO: 1987-358672  
DERWENT-WEEK: 198751  
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TITLE: Embossed type carrier tape loading electronic parts or drug - includes band tape  
substrate with pin perforations at one side, cut perforating and projecting top  
perforations NoAbstract Dwg 5/5

## PATENT-ASSIGNEE:

ASSIGNEE

MATSUSHITA ELEC IND CO LTD

CODE

MATU

PRIORITY-DATA: 1986JP-0102329 (May 2, 1986)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 62260673 A	November 12, 1987		003	

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP62260673A	May 2, 1986	1986JP-0102329	

INT-CL (IPC): B65D 73/02; H05K 13/02

ABSTRACTED-PUB-NO:

EQUIVALENT-ABSTRACTS:

TITLE-TERMS: EMBOSS TYPE CARRY TAPE LOAD ELECTRONIC PART DRUG BAND TAPE SUBSTRATE PIN  
PERFORATION ONE SIDE CUT PERFORATION PROJECT TOP PERFORATION NOABSTRACT

DERWENT-CLASS: B07 Q34 V04

CPI-CODES: B11-C05;

EPI-CODES: V04-V01;

CHEMICAL-CODES:

Chemical Indexing M6 \*01\*

Fragmentation Code

M903 R170 R740

Registry Numbers

87140 1286M

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L11: Entry 8 of 30

File: DWPI

Apr 21, 1998

DERWENT-ACC-NO: 1998-291728  
DERWENT-WEEK: 199826  
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TITLE: Carrier tape for conveying electronic components during equipping of circuit boards - has uneven parts with similar shapes queued and embossed in constant pitch along longitudinal direction to couple carrier tape with another carrier tape and hold component during conveyance

PATENT-ASSIGNEE:

ASSIGNEE

MATSUSHITA DENKI SANGYO KK

CODE

MATU

PRIORITY-DATA: 1996JP-0254232 (September 26, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 10101178 A	April 21, 1998		007	B65D085/86

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP10101178A	September 26, 1996	1996JP-0254232	

INT-CL (IPC): B65 B 15/04; B65 D 73/00; B65 D 85/86

ABSTRACTED-PUB-NO: JP10101178A

BASIC-ABSTRACT:

The carrier tape (2) has perforations (4) formed along its side edges, and holds and conveys a component (3) in constant pitch along the longitudinal direction.

Uneven parts (21) with similar shapes are queued in constant pitch along the longitudinal direction of the carrier tape, but are not used in holding the component. The uneven parts are embossed to join the carrier tape with another carrier tape in the same position to hold the component.

ADVANTAGE - Carrier tapes are continuously supplied without increasing cost and occupancy area in facility. Stabilises connection condition without interruption conveyance and supply of component. Ensures versatility since carrier tape is not affected by form of conveyed component. Ensures string bonding between carrier tapes.

CHOSEN-DRAWING: Dwg.1/4

TITLE-TERMS: CARRY TAPE CONVEY ELECTRONIC COMPONENT EQUIP CIRCUIT BOARD UNEVEN PART  
SIMILAR SHAPE QUEUE EMBOSS CONSTANT PITCH LONGITUDE DIRECTION COUPLE CARRY TAPE CARRY  
TAPE HOLD COMPONENT CONVEY

DERWENT-CLASS: Q31 Q34 V04

EPI-CODES: V04-R04G1;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1998-229488

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L11: Entry 6 of 30

File: DWPI

Apr 18, 2002

DERWENT-ACC-NO: 1999-246757  
DERWENT-WEEK: 200234  
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TITLE: Carrier tape for packaging and carrying electronic components

INVENTOR: MIKAMI, S

PATENT-ASSIGNEE:

ASSIGNEE

CODE

SUMITOMO BAKELITE CO LTD

SUMB

PRIORITY-DATA: 1997JP-0294148 (October 27, 1997)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 69804184 E	April 18, 2002		000	H05K013/04
EP 912082 A1	April 28, 1999	E	017	H05K013/04
CN 1215690 A	May 5, 1999		000	B65G049/07
JP 11193062 A	July 21, 1999		007	B65D073/02
KR 99037382 A	May 25, 1999		000	H05K013/02
US 6102210 A	August 15, 2000		000	B65D085/30
SG 74086 A1	July 18, 2000		000	B65D073/02
TW 388742 A	May 1, 2000		000	B65D073/02
EP 912082 B1	March 13, 2002	E	000	H05K013/04

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO  
SE SI DE FR GB

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DE 69804184E	October 16, 1998	1998DE-0604184	
DE 69804184E	October 16, 1998	1998EP-0119622	
DE 69804184E		EP 912082	Based on
EP 912082A1	October 16, 1998	1998EP-0119622	
CN 1215690A	October 27, 1998	1998CN-0123468	
JP 11193062A	October 22, 1998	1998JP-0301131	
KR 99037382A	October 26, 1998	1998KR-0044828	
US 6102210A	October 7, 1998	1998US-0167549	
SG 74086A1	October 10, 1998	1998SG-0004176	
TW 388742A	October 13, 1998	1998TW-0116971	
EP 912082B1	October 16, 1998	1998EP-0119622	

INT-CL (IPC): B65 D 73/02; B65 D 85/30; B65 D 85/86; B65 G 49/07; H05 K 13/02; H05 K 13/04

ABSTRACTED-PUB-NO: EP 912082A

BASIC-ABSTRACT:

NOVELTY - The carrier tape (1) has embossed portions (2) for storing electronic components arranged at regular intervals in the lengthwise direction of the tape. The embossed portion first and third opposing side walls which are positioned at both sides of the lengthwise direction of the tape, have a pair of first protrusions A (6) preventing the electronic components from transverse shaking.

DETAILED DESCRIPTION - Second protrusions B are provided between the pair of the protrusions A for preventing the electronic component from longitudinal shaking. The distance between the pair of the protrusions A is larger by 0.05-0.5 mm than the length of the electronic component in the lengthwise direction of the carrier tape. The bottom surface forming the embossed portion has two or more protuberances (8) in the direction perpendicular to the lengthwise direction of the carrier tape.

USE - For carrying and packaging electronic components such as ICs.

ADVANTAGE - Electronic components vibration and shaking in the embossed portions are reduced, scatter in peel strength of the cover tape is decreased, the contamination, distortion and bending of the electronic component lead part is prevented and optical inspection ability for the inserted electronic components is improved.

DESCRIPTION OF DRAWING(S) - The drawing shows a plan view of the carrier tape.

Carrier tape 1

Recess (embossed portion) 2

Flange portion 3

Perforations 4

Protrusion A 6

Central protuberance 8

ABSTRACTED-PUB-NO:

EP 912082B

EQUIVALENT-ABSTRACTS:

NOVELTY - The carrier tape (1) has embossed portions (2) for storing electronic components arranged at regular intervals in the lengthwise direction of the tape. The embossed portion first and third opposing side walls which are positioned at both sides of the lengthwise direction of the tape, have a pair of first protrusions A (6) preventing the electronic components from transverse shaking.

DETAILED DESCRIPTION - Second protrusions B are provided between the pair of the protrusions A for preventing the electronic component from longitudinal shaking. The distance between the pair of the protrusions A is larger by 0.05-0.5 mm than the length of the electronic component in the lengthwise direction of the carrier tape. The bottom surface forming the embossed portion has two or more protuberances (8) in the direction perpendicular to the lengthwise direction of the carrier tape.

USE - For carrying and packaging electronic components such as ICs.

ADVANTAGE - Electronic components vibration and shaking in the embossed portions are reduced, scatter in peel strength of the cover tape is decreased, the contamination, distortion and bending of the electronic component lead part is prevented and optical inspection ability for the inserted electronic components is improved.

DESCRIPTION OF DRAWING(S) - The drawing shows a plan view of the carrier tape.

Carrier tape 1

Recess (embossed portion) 2

Flange portion 3

Perforations 4

Protrusion A 6



Central protuberance 8

US 6102210A

NOVELTY - The carrier tape (1) has embossed portions (2) for storing electronic components arranged at regular intervals in the lengthwise direction of the tape. The embossed portion first and third opposing side walls which are positioned at both sides of the lengthwise direction of the tape, have a pair of first protrusions A (6) preventing the electronic components from transverse shaking.

DETAILED DESCRIPTION - Second protrusions B are provided between the pair of the protrusions A for preventing the electronic component from longitudinal shaking. The distance between the pair of the protrusions A is larger by 0.05-0.5 mm than the length of the electronic component in the lengthwise direction of the carrier tape. The bottom surface forming the embossed portion has two or more protuberances (8) in the direction perpendicular to the lengthwise direction of the carrier tape.

USE - For carrying and packaging electronic components such as ICs.

ADVANTAGE - Electronic components vibration and shaking in the embossed portions are reduced, scatter in peel strength of the cover tape is decreased, the contamination, distortion and bending of the electronic component lead part is prevented and optical inspection ability for the inserted electronic components is improved.

DESCRIPTION OF DRAWING(S) - The drawing shows a plan view of the carrier tape.

Carrier tape 1

Recess (embossed portion) 2

Flange portion 3

Perforations 4

Protrusion A 6

Central protuberance 8

CHOSEN-DRAWING: Dwg.1/14

TITLE-TERMS: CARRY TAPE PACKAGE CARRY ELECTRONIC COMPONENT

DERWENT-CLASS: Q34 Q35 U11 V04

EPI-CODES: U11-D03A1B; U11-F02A3; U11-F02A4; V04-R04G1;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1999-183863

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : **10-101178**

(43)Date of publication of application : **21.04.1998**

(51)Int.Cl.

**B65D 85/86**

**B65B 15/04**

**B65D 73/00**

(21)Application number : **08-254232**

(71)Applicant : **MATSUSHITA ELECTRIC IND CO LTD**

(22)Date of filing : **26.09.1996**

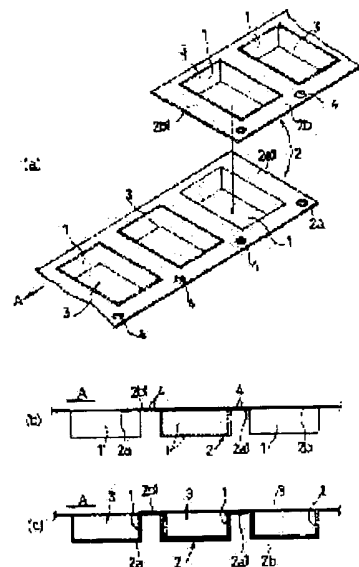
(72)Inventor : **SAYAMA TAKESHI  
KAMIMURA NOBUYA  
UMEDA MASAYUKI  
SATO YASUYUKI**

## (54) CARRIER TAPE AND PART SUPPLY METHOD USING THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To supply a novel tape part to continuously supply parts without stopping the supply of parts or replacing a part supply unit.

SOLUTION: The leading end part 2b1 of a succeeding carrier tape 2b of the same kind used in the supply of parts 3 is superposed on the rear end part 2a1 of a preceding carrier tape 2a supplying parts 3 held at a constant pitch in its longitudinal direction so as to continue to the tape 2a and the corresponding recessed parts 1 holding the parts 3 formed to both tapes longitudinally at a constant pitch or/and the corresponding embossed uneven parts 21 not participated in the holding of parts of both tapes are mutually fitted to allow the preceding and succeeding carrier tapes 2a, 2b to hook with each other in a tape surface direction to connect both tapes in an integrated state and the succeeding carrier tape 2b is integrally fed by the preceding carrier tape 2a.



## LEGAL STATUS

[Date of request for examination]

28.11.2001

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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# WEST Search History

DATE: Thursday, September 05, 2002

## Set Name Query

side by side

## Hit Count Set Name

result set

*DB=DWPI; PLUR=YES; OP=ADJ*

L11	emboss\$ and tape and (perforat\$ or apertur\$)	30	L11
L10	l7 and l8	1	L10
L9	l7 same l8	1	L9
L8	adhesive or glue	275894	L8
L7	cavity ratio	42	L7

*DB=USPT; PLUR=YES; OP=ADJ*

L6	bottle same emboss\$ same label\$	39	L6
L5	((428/141  428/156 )!.CCLS. )	2575	L5
L4	l1 and l2	22	L4
L3	l1 same l2	0	L3
L2	adhesive	298837	L2
L1	cavity ratio	118	L1

END OF SEARCH HISTORY